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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,280	04/08/2004	Jack W. Adoline	BGEE 2 00017	8603
27885	7590	10/02/2008		
FAY SHARPE LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114			EXAMINER SY, MARIANO ONG	
			ART UNIT 3683	PAPER NUMBER
			MAIL DATE 10/02/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/820,280

**Applicant(s)**

ADOLINE ET AL.

**Examiner**

MARIANO SY

**Art Unit**

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 and 42-96 is/are pending in the application.
- 4a) Of the above claim(s) 33-40, 42-48, 63-71 and 77-83 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32, 49-62, 72-76 and 84-96 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. The amendment filed on June 16, 2008 has been received.
2. Claims 1 and 49 are objected to because of the following informalities:  
Claim 1, line 18 "to a positioned" should be --to a position--,  
Claim 49, lines 25-26 "to a positioned" should be --to a position--.  
Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 5, 10, 11, 13, 27, 29, 31, 49, 50, 57, 60, and 74-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice (US 6,615,450) in view of Johnston (US 5,360,123) and in view of Fitzlaff (US 5,728,174).

Salice disclosed, as shown in fig. 1-4, a spring system comprising a housing 1 having an axis, an internal chamber, and axially opposite bottom and top ends; a rod member 9 having an inner end in said housing and an outer end axially outwardly of said top end of said housing; a guide member (piston) 7 on said inner end of said rod member; a compression spring 6 extending between said guide member and the bottom end of said housing; and top and bottom bushings, said top bushing positioned at least closely adjacent to said top end of said housing and a bottom bushing positioned at least closely adjacent to said bottom end of said housing; said top bushing including an opening to enable a portion of said rod member to pass therethrough and to support said rod member for reciprocation axially of said housing between retracted and extended positions relative thereto, said top bushing including a sealing arrangement to inhibit fluid from entering into and escaping from said internal chamber; said spring applying a force on said guide member as said rod member moves between fully retracted and fully extend positions, said guide member designed to move into engagement with or move to a position closely adjacent (relatively broad phrase) to said top bushing when said rod member moves to a fully extended position, said spring having a free length that is at least a majority length of said internal chamber, said spring contacting said bottom bushing when said rod member in said fully retracted position, said guide member dividing said internal chamber into at least two sub-

chambers, said guide member including a first passageway 19, 20 that regulates fluid flow between said at least two sub-chambers during reciprocation of said rod member, said first passageway spaced from an outer edge of said guide member, said outer end of said rod member including a mounting element.

However Salice failed to disclose a second compression spring extending between said guide member and the bottom end of said housing and a sealing arrangement positioned at least closely adjacent to a bottom of said top bushing.

Johnston teaches, as shown in fig. 18, the use of first 134 and second 136 compression springs extending between the guide member and the bottom end of the housing.

It would have been obvious to one of ordinary skill in the art to provide a second compression spring into the spring system of Salice, as taught by Johnston, in order to increase the linear spring force.

Fitzlaff teaches, as shown in fig. 1, a sealing arrangement 4 positioned at least closely adjacent to a bottom of a top bushing 2.

It would have been obvious to one of ordinary skill in the art to provide a seal positioned at least closely adjacent to the bottom of the top bushing of Salice, as taught by Fitzlaff, in order to provide a tight seal between the top bushing and the cylinder so as to avoid leakage in the inner chamber.

6. Claims 2, 6, 8, 12, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice in view of Johnston and in view of Fitzlaff as applied to claims 1 and 49 above, and further in view of Johnsen (US 5,551,674).

Salice as modified disclosed wherein the outside diameter of the first compression spring is less than the outside diameter of the second compression spring and the wire diameter of the first spring is less than the wire diameter of the second spring but failed to disclose wherein the direction of winding of said first compression spring is opposite to the direction of winding of said second compression spring.

Johnsen teaches, as shown in fig. 1, a resilient support device 10 wherein the direction of winding of first compression spring 20 is opposite to the direction of winding of second compression spring 18, see col. 3, lines 50-57.

It would have been obvious to one of ordinary skill in the art to provide the spring system of Salice as modified with the direction of winding of first compression spring opposite to the direction of winding of second compression spring, as taught by Johnsen, in order to prevent possible mechanical interference between the first and second springs resulting from interleaving of the coils.

7. Claims 3, 73, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice in view of Johnston and in view of Fitzlaff as applied to claims 1 and 49 above, and further in view of Geyer (US 4,148,469).

Salice as modified failed to disclose wherein the free length of first compression spring is different from the free length of second compression spring.

Geyer teaches, as shown in fig. 2, first 32 and second 30 compression springs wherein one spring having a free length that is greater than the other.

It would have been obvious to one of ordinary skill in the art to provide the spring system of Salice as modified with the free length of first compression spring is different from the free length of second compression spring, as taught by Geyer, in order to vary the linear spring force of the springs.

8. Claims 4, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice in view of Johnston, in view of Fitzlaff and in view of Johnsen as applied to claims 1 and 2 above, and further in view of Geyer '469.

Salice as modified disclosed wherein the outside diameter of the first compression spring is less than the outside diameter of the second compression spring and the wire diameter of the first spring is less than the wire diameter of the second spring but failed to disclose wherein the free length of first compression spring is different from the free length of second compression spring.

Geyer teaches, as shown in fig. 2, first 32 and second 30 compression springs wherein one spring having a free length that is greater than the other.

It would have been obvious to one of ordinary skill in the art to provide the spring system of Salice as modified with the free length of first compression spring is different from the free length of second compression spring, as taught by Geyer, in order to vary the linear spring force of the springs.

9. Claims 14, 17, 18, 22, 23, 51-56, 58, 59, 61, 62, 87, 90, and 93-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice in view of Johnston and in view of Fitzlaff as applied to claims 1 and 49 above, and further in view of Miura et al. (US 6,315,093).

Salice as modified disclosed wherein the housing prevents fluid flow through the bottom end and the top end to an exterior of the housing but failed to disclose wherein the first passageway in said guide member includes a one way valve arrangement and a second passageway spaced from outer edge of guide member and spaced from first passageway, wherein the second passageway has a maximum fluid flow rate that is less than a maximum fluid flow rate of the first passageway.

Miura et al. teaches, as shown in fig. 5, a first passageway 14 includes one way valve arrangement and a second passageway 3c in guide member 3, wherein the second passageway has a maximum fluid flow rate that is less than a maximum fluid flow rate of the first passageway.

It would have been obvious to one of ordinary skill in the art to merely provide the known first passageway with one way valve arrangement and a second passageway of the guide member of Salice as modified, as taught by Miura et al., in order to change the damping characteristics of the spring system.

10. Claims 15, 16, 19-21, 24-26, 28, 30, 32, 88, 89, 91, and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice in view of Johnston, in view



of Fitzlaff and in view of Johnsen as applied to claims 1 and 2 above, and further in view of Miura et al. (US 6,315,093).

Salice as modified disclosed wherein the housing prevents fluid flow through the bottom end and the top end to an exterior of the housing but failed to disclose wherein the first passageway in said guide member includes a one way valve arrangement and a second passageway spaced from outer edge of guide member and spaced from first passageway, wherein the second passageway has a maximum fluid flow rate that is less than a maximum fluid flow rate of the first passageway.

Miura et al. teaches, as shown in fig. 5, a first passageway 14 includes one way valve arrangement and a second passageway 3c in guide member 3, wherein the second passageway has a maximum fluid flow rate that is less than a maximum fluid flow rate of the first passageway.

It would have been obvious to one of ordinary skill in the art to merely provide the known first passageway with one way valve arrangement and a second passageway of the guide member of Salice as modified, as taught by Miura et al., in order to change the damping characteristics of the spring system.

11. Claims 85 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice in view of Johnston, in view of Fitzlaff and in view of Miura et al. as applied to claim 49 above, and further in view of Geyer '469.

Salice as modified failed to disclose wherein at least one of the first and second compression springs in a partially compressed state when the spring rod member is in fully extended position.

Geyer teaches, as shown in fig. 2, first 32 and second 30 compression springs wherein one spring having a free length that is greater than the other.

It would have been obvious to one of ordinary skill in the art to provide the spring system of Salice as modified with the free length of first compression spring is different from the free length of second compression spring, as taught by Geyer, so as the compression spring with the longer free length will be partially compressed when the spring rod member is in fully extended position in order to vary the linear spring force of the springs.

### ***Response to Arguments***

12. Applicant's arguments filed on June 16, 2008 have been fully considered but they are not persuasive.

Examiner maintains the rejection is proper.

A). Regarding the arguments in Remarks on page 21:

Salice does not disclose 1) a second compression spring having an outside diameter larger than the first compression spring. Johnston (US 5,360,123) is merely utilized for the known teaching of the use of two compression springs coaxial with each other. This is simply a substitution of one known element for another to obtain predictable result.

Salice discloses 2) the guide member 7 has a passageway 19, 20 that passes fully through the guide member.

Salice discloses 3) [newly amended] the guide member is designed to move into engagement with or move to a position closely adjacent to the top bushing when the rod member moves to a fully extended position, this is shown in fig. 1 (closely adjacent is a relatively broad phrase).

Salice failed to disclose 4) [newly amended] the top bushing includes a sealing arrangement positioned at least closely adjacent to a bottom of the top bushing. Fitzlaff (US 5,728,174) teaches, as shown in fig. 1, a sealing arrangement 4 positioned at least closely adjacent to a bottom of a top bushing 2. This is simply a substitution of one known element for another to obtain predictable result.

Salice discloses 5) the guide member 7 has a passageway 19, 20 which is fully spaced from the side of the guide member, see fig. 1 and 3.

Salice failed to disclose 6-10) guide member can include a valve and a second passageway that fully passes through the guide member. Miura et al. (US 6,315,093) teaches, as shown in fig. 5, a first passageway 14 includes one way valve arrangement and a second passageway 3c in guide member 3, wherein the second passageway has a maximum fluid flow rate that is less than a maximum fluid flow rate of the first passageway. This is simply a substitution of one known element for another to obtain predictable result.

B). Regarding the arguments in Remarks on pages 21-22:

Johnston (US 5,360,123) is merely utilized for the known teaching of the use of two compression springs coaxial with each other. This is simply a substitution of one known element for another to obtain predictable result.

C). Regarding the arguments in Remarks on page 23:

Johnsen (US 5,551,674) is merely utilized for the known teaching of the use of a compression spring 20 with the direction of winding that is opposite to the direction of winding of second compression spring 18. This is simply a substitution of one known element for another to obtain predictable result.

D). Regarding the arguments in Remarks on page 23:

Geyer (US 4,148,469) is merely utilized for the known teaching of the use of first 32 and second 30 compression springs wherein one spring having a free length that is greater than the other. This is simply a substitution of one known element for another to obtain predictable result.

### ***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIANO SY whose telephone number is (571)272-7126. The examiner can normally be reached on Mon.-Fri. from 8:30 A.M. to 2:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi, can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/MS/

September 11, 2008

/Robert A. Siconolfi/

Supervisory Patent Examiner, Art Unit 3683